

# DATA PROCESSING

## VOLUME 10

### List of contents and subject index for 1968

The list of Contents gives the page numbers, titles and sub-titles of articles published during 1968. An item in the Subject Index is cross-referenced to the list of Contents by the number of the page in which the reference appears. For example, the item "Friden 5610 computyper" is stated in the Subject Index to appear on page 235; reference to the Contents shows that page 235 is in the article entitled "Data processing in the drawing office".

During 1968 three supplements were published; the titles of the articles included in these supplements are listed separately, at the end of the list of Contents. References to individual items in the supplements are not included in the Index.

FOR TOP MANAGEMENT AND CHIEF EXECUTIVES

# CONTENTS FOR 1968

---

## NUMBER 1 JANUARY-FEBRUARY

<b>British computer for a French organisation</b>	2
procedures adopted by a French social security association are based on an I.C.T. 1902 computer	
<b>O.C.R.—a practical means of data entry</b>	8
optical character recognition is becoming an economically practicable technique for entering data into a computer	
<b>Real time control at BEA</b>	14
two Univac 494 computers are used by British European Airways to handle seat reservations, and further real time applications are planned	
<b>Systems analysis training</b>	22
a training package has been developed by the National Computing Centre	
<b>Topics</b>	24
new equipment—applications—software	
<b>Business models</b>	34
the complexity of modern industry has led to the development of techno-economic models as an aid to planning	
<b>Burroughs 500 Series</b>	42
details of a range of computers which covers a broad spectrum of computing power	
<b>Integrated Data Store</b>	52
a software system for handling management information	

## NUMBER 2 MARCH-APRIL

<b>Keeping the customer happy</b>	58
an I.C.T. 1903 is used by Electrolux Limited to maintain an efficient spare parts service for its customers	
<b>Computer techniques for project control</b>	66
probable trends in the future development of network analysis	
<b>JEAN—a simple language for multi-access systems</b>	75
<b>Friden 5005</b>	78
a compact invoicing machine for the smaller firm	
<b>Topics</b>	82
new equipment—applications—software	
<b>Stock analysis as an aid to effective stock control</b>	92
by analysing stocks it is possible to set stock levels on the basis of rational criteria and to measure the efficiency of existing methods of control	
<b>Data transmission terminals from Olivetti</b>	96
description of a new range of communications equipment	
<b>Computer-based information service</b>	102
a service established by Indata Limited provides details of new products in the fields of electronics, instrumentation and automation	

## NUMBER 3 MAY-JUNE

<b>Digital computer for process control</b> the K70 control system has been introduced by George Kent Limited for industrial use	112
<b>Standardisation in programming</b>	118
<b>Kienzle System 800</b> a visible record computer for accounting work	122
<b>Aspects of computing at Rolls-Royce</b> <i>Current applications</i>	126
<i>Organisation and objectives</i>	130
<i>Education and training</i>	136
<b>Hocus—a simple approach to simulation</b> a "do-it-yourself" technique which can be learned in three days	141
<b>Topics</b> new equipment—applications—software	146
<b>Elliott 4100 graphic display system</b> a computer-based system of particular significance in the field of design automation	156
<b>Microfilm in commerce and industry</b> recent developments from Caps Equipment Limited	160
<b>Real-time stock control system</b> warehouses of the Miles Druce Group are linked by a real-time computing network	162

## NUMBER 4 JULY-AUGUST

<b>Inventory control and forecasting at the BBC</b> a system for controlling stock levels at sites throughout Britain and at a central store is based on an I.C.T. 1909 computer	168
<b>Haulacost</b> a computer-based costing service for the road haulage industry	177
<b>Data recording on a typewriter</b>	182
<b>Strategy for success</b> the introduction of a new range of processors is designed to ensure the continued success of the I.C.T. 1900 Series	184
<b>Computer Timing and Costing Model</b> a method of evaluating the performance and cost of computer systems	192
<b>Topics</b> new equipment—applications—software	198
<b>Computers come to the discount market</b> three NCR 500 visible record computers are being used by a discount house	208
<b>A second look at the System/360</b> the IBM System/360 is an "open-ended" range designed to meet the changing needs of the computer user; how is this being achieved?	214

## NUMBER 5 SEPTEMBER-OCTOBER

<b>Inexpensive data processing for the commercial firm</b>	224
description of the Akkord AC6000 electronic accounting machine	
<b>The role of the systems analyst</b>	228
environment is the decisive factor in determining how effectively the analyst can do his job	
<b>Data processing in the drawing office</b>	234
providing computing facilities for designers is a problem, but Babcock and Wilcox have found a solution	
<b>The computer and stock re-ordering</b>	239
accepting existing methods without question can lead to the implementation of ineffective systems	
<b>Spares control for the motor trade</b>	242
a spare parts inventory control system is helping dealers to save money and improve their service	
<b>File conversion system</b>	250
The Series 9000 converter transcribes data files from one magnetic tape format to another	
<b>Topics</b>	252
new equipment—applications—software	
<b>Aspects of data preparation at Esso</b>	262
MDS data recorders are being used by Esso for data preparation and transmission	
<b>New computers for science and industry</b>	267
outline of a new range introduced by Honeywell	
<b>Company profile: Scientific Furnishings</b>	268
<b>Supplement Computer consumables</b>	I-XXX

## NUMBER 6 NOVEMBER-DECEMBER

<b>A computer to the rescue</b>	273
a computer has been used for "first aid" purposes in an adverse manufacturing situation	
<b>Data 4000 and Data 8000</b>	276
two visible record computers from Philips-Electrologica	
<b>Programming computers in ordinary English</b>	281
some developments in the field of natural language programming	
<b>Capturing production data at source</b>	284
a data collection system and a Honeywell computer are helping Jersey-Kapwood to control their manufacturing operations	
<b>The profits of computing and systems analysis</b>	290
some observations on the profitability of commercial computer systems	
<b>Alitalia goes on-line</b>	293
<b>Microfilming computer records</b>	294
converting magnetic tape records into microfilm format is one solution to the problem posed by growing volumes of file data	
<b>Topics</b>	302
new equipment—applications—software	
<b>Company profile: Business Computers</b>	312
<b>Multiprogramming system from Univac</b>	316
description of the Univac 9400 computer	
<b>Supplement Data Preparation</b>	I-XXX

## SUPPLEMENTS

### **IFIP Congress 68**

*(published separately)*

The next three years	22
Computers 1968—a re-appraisal	27
Computers and Electronics	33
Software development	36
Exhibitors and stands	43

### **Computer Consumables**

*(published in September–October 1968 issue)*

Importance of quality	VI
Continuous stationery and metrication	IX
Saving stationery cost	X
Solving the print-out problem	XV
Tables	XV

### **Data Preparation**

*(published in November–December 1968 issue)*

Methods and machines	VII
Time of change for bureaux	XV
Tables	XX



# SUBJECT INDEX

## A

Accounting machines 28, 78, 210  
Advanced Computer Technology Project (ACTP) 88, 156  
AGRR (Association Générale de Retraites par Répartition) 2  
Airline seat reservation systems 14, 293  
Akkord AC6000 electronic calculating machine 203, 224  
Akkord-Radio GmbH, West Germany 224  
Algol (programming language) 48, 118, 188, 222  
Alitalia goes on-line 293  
Analogue computers 307  
Argus Model L computer 259  
Aspects of computing at Rolls-Royce 126, 130, 136  
Aspects of data preparation at Esso 262  
Assets Computer Services Limited 82  
Association Générale de Retraites par Répartition (AGRR) 2  
Atkins, W. S. & Partners 163  
Authors:  
Allan, J. C. C. 136  
Barlow, D. H. 102  
Batcheller, P. J. 294  
Daniels, A. 22  
Detwiler, Karl E. 192  
Foord, J. W. 126  
George, F. H. 281  
Grant, J. C. 273  
Griffiths, L. 130  
Hall, P. M. 8  
Hatton, Donald 156  
Henney, A. 92, 290  
Hills, Robin 141  
Judd, Robin 118  
Kandiah, S. 168  
Martin, D. J. M. 75  
Noble, A. S. 34  
Reynaud, Cleomir 66  
Robinson, F. 228  
Tatham, Laura 214  
Thomas, H. M. 239  
Automated Drafting Equipment (ADE) 88  
Automation Instrument Data Service 102

## B

Babcock & Wilcox Limited 234  
Barlow, D. H. Author 102  
Batcheller, P. J. Author 294  
B.B.C. Inventory control and forecasting, at the 168  
BEA, Real time control at 14  
BEACON (BEA Computer Network) 14  
Black, G., Professor 22  
Blue Cross and Blue Shield 294  
British Broadcasting Corporation 168  
British computer for a French organisation 2  
British European Airways 14  
British Standards Institution, The (BSI) 303  
Bureau news 24, 307  
Burroughs B500 Series computer 42  
Burroughs B2500 computer 45  
Burroughs B3500 computer 46  
Burroughs B5500 computer 49  
Burroughs B6500 computer 49  
Burroughs B75000 computer 50  
Burroughs B8500 computer 50  
Burroughs E6000 accounting machine 28  
Business Computers Limited 312  
Business models 34

## C

CAD (Computer aided design) 156, 234  
Caelus Memories Inc. 271  
Calcomp plotting equipment 207, 260  
California Computer Products 207, 260  
CAP expansion continues 257  
CAPRI (programming aid) 257  
Caps Equipment Limited 84, 160

Capturing production data at source 284  
Cash-flow models 34  
Cater Ryder & Company Limited 208  
CDC 6600 computer 256  
C-E-I-R Limited 67, 198  
Changing face of data preparation 33  
Cheque personalisation machine 84  
Commerce and industry, Microfilm in 160  
Commercial firm, Inexpensive data processing for the 224  
Compact invoicing machine for the smaller firm, Friden 5005 78  
Compagnie Internationale pour L'Informatique (CII) 302  
Company news 147 306  
Company profile: Business Computers Limited 312  
Company profile: Scientific Furnishings Limited 268  
Computaquant, news from 88  
Computers: (See also Desk-sized computers):  
Argus Model L (Ferranti) 259  
Burroughs B500 Series 42  
Burroughs B2500 45  
Burroughs B3500 46  
Burroughs B5500 49  
Burroughs 6500 49  
Burroughs 7500 50  
Burroughs B8500 50  
CDC 6600 (Control Data) 256  
Data 4000 (Philips-Electrologica) 276  
Data 8000 (Philips-Electrologica) 276  
English Electric Elliott 903 147  
GE-130 207  
Honeywell Series 32 267  
Honeywell 110 155  
Honeywell 125 285  
Honeywell 632 267  
IBM System/360 82, 132, 214  
IBM System/360 Model 25 221  
IBM System/360 Model 40 102  
IBM System/360 Model 65 293  
IBM System/360 Model 85 221  
IBM 1130 145  
IBM 1401 295  
I.C.T. 1900 and 1900A Series 83, 184  
I.C.T. 1902 2  
I.C.T. 1903 59, 248  
I.C.T. 1906A 33  
I.C.T. 1909 168  
IRIS 50 (CII) 302  
KDF 9 178  
K70 (George Kent) 24, 112  
Modular One 198  
Myriad II 154  
NCR Century 100 150  
NCR Century 200 150  
NCR Series 500 209  
NCR 5900 24  
PDP 8 24, 112  
PDP-8/I 113  
PDP-8/L 260  
PDP-9/L 260  
P1000 Series (Philips-Electrologica) 525  
Raytheon 520 128  
Redifon 2000 310  
Univac 494 16  
Univac 1050 163  
Univac 1108 311  
Univac 9400 316  
Computer aided design (CAD) 156, 234  
Computer Analysts & Programmers Limited 88, 257  
Computer and stock re-ordering, the 239  
Computer-based costing service for the road haulage industry 177  
Computer-based information service 102  
Computer-based property registers 82  
Computer bureau news 24, 307  
Computer Instrumentation Limited 147, 202, 250  
Computer Interfaces Limited 182  
Computer Instrumentation Limited 306  
Computer orders and installations 31, 85, 151, 199, 252, 304

Computer records, microfilming 294  
Computer Sciences Corporation (CSC) 31  
Computer techniques for project control 66  
Computer Technology Limited 198  
Computer Timing and Costing Model 192  
Computer to the rescue, A 273  
Computers come to the discount market 208  
Computing and systems analysis, the profits of 290  
Computyper, Friden 5005 78  
Computyper, Friden 5610 235  
Conferences and Courses 302  
Consultancy, a new name in 85  
Contract Computing Limited 307  
Control Data 915 page reader 272  
Control Data Corporation 206, 256, 269  
Co-ordinate reader 311  
Costing service for the road haulage industry 177  
Cotan (operating system) 310  
Courier Express 90  
CPM (Critical Path Method) 66  
Creed & Company Limited 273  
CTCM (Computer Timing and Costing Model) 192  
Current applications (Aspects of computing at Rolls-Royce) 126  
Cybernetic Developments Limited 152  
CZ Scientific Instruments Limited 306

## D

Daniels, A. Author 22  
Data collection equipment 275, 284  
Data communication equipment from STC 27  
Data Dynamics Limited 146, 153  
Data entry, O.C.R.—a practical means of 8  
Data 4000 and Data 8000 276  
Data preparation at Esso, Aspects of 262  
Data preparation, Changing face of 33  
Data processing in the drawing office 234  
Data Recognition Limited 306  
Data recorders, MDS 1100 series 33, 85, 262  
Data Recording Instrument Company 303  
Data recording on a typewriter 182  
Datascan (information retrieval program) 310  
Data Sciences 242  
Data-Solve Limited 82  
Data transmission in the news 149  
Data transmission terminals from Olivetti 96  
De La Rue Bull Machines Limited 203, 207  
De La Rue Bull time sharing service 91  
Desk-sized computers and calculating machines:  
Akkord AC6000 203, 224  
Friden 5005 78  
Friden 5610 235  
Kienzle System 800 122  
Logabax 3200 204  
Olivetti Programma 101 235  
Sadie 312  
Susie 312  
Detwiler, Karl E. Author 192  
Detwiler, Thomas & Associates 85, 192  
Developments from Digital 260  
DIDS-400 for Iberia Airlines 205  
Digi-Data 1430 tape recorder 84  
Digital Equipment Corporation 113, 260  
Digital computer for process control 112  
Digital Information Display (DIDS-400) 205  
Direct digital control system (K70) 24, 112  
Discount market, computers come to the 208  
Discounted cash flow 40  
Disc store from Infotechnics 261  
Display system (C.R.T.) 135, 156, 219  
D-mac pencil follower 236  
Drawing office, Data processing in the 234

## E

Eastern Computer Services 308  
East-West trade for I.C.T. 204  
Education and training (Aspects of computing at Rolls-Royce) 136

Egdon 3 (operating system) 310  
 Electrolux Limited 58  
 Electronic (typesetting) 147  
 Elliott-Automation Computers Limited 156  
 Elliott computers, varied applications for 147  
 Elliott 4100 graphic display system 156  
 English Electric Computers Limited, Bureau Division 177  
 English Electric Elliott 903 computer 147  
 Esso Petroleum Company Limited 262  
 Evaluating the performance and cost of computer systems 192  
 Expansion of I.T.T. Data Services 205  
 Exponential smoothing 64

## F

Facit-Odhner, orders for 199  
 Fanfold Limited 84  
 Farrington Data Processing Limited 306  
 Farrington Limited 84  
 Feedback data collection equipment 284  
 Ferranti Limited 259  
 Ferranti Limited, Information Equipment Group 88  
 File conversion system 250  
 Focal (programming aid) 261  
 Foord, J. W. Author 126  
 Ford Motor Company 242  
 Fortran (programming language) 48, 118, 164, 188, 198, 222  
 French computers from CII 302  
 French organisation, British computer for a 2  
 Friden 5005 78  
 Friden 5610 computer 235  
 Friden Limited 78

## G

GE-130 computer 207  
 G.E.C. Computers and Automation Limited 149  
 General Computing of New York City 297  
 General Electric Company (U.S.A.) 52  
 GEORGE (operating system) 191  
 George, F. H. Author 281  
 George Kent (Petrochemical) Limited 24  
 GH210, Data communication terminal 27  
 GNT Automatic Limited 147  
 Grant, J. C. Author 273  
 Graphic display units 135, 156, 219  
 Graphic display system, Elliott 4100 156  
 Great Northern Telegraph Works 30  
 Griffiths, L. Author 130

## H

Hagen Systems International 311  
 Hall, P. M. Author 8  
 Hand or Computer Simulator (HOCUS) 141  
 Haromat electronic co-ordinate reader 311  
 Harwell J., Data Processing Limited 310  
 Hatton, Donald Author 156  
 Haulacost 177  
 Henney, A. Author 92, 290  
 Hills, Robin Author 141  
 Hoare & Company 260  
 HOCUS—a simple approach to simulation 141  
 Homeseek Limited 82  
 Homeseekers Computer Service Limited 82  
 Honeywell Series 32 computers 267  
 Honeywell 110 computer 155  
 Honeywell 125 computer 285  
 Honeywell 632 computer 267  
 Hybrid Systems from Redifon-Astrodata 207

## I

IBM Data Centre Services 309  
 IBM System/360 computers 82, 132, 214  
 IBM System/360 Model 25 221  
 IBM System/360 Model 40 computer 102  
 IBM System/360 Model 65 computer 293  
 IBM System/360 Model 85 computer 221  
 IBM 1130 computer 145  
 IBM 1401 computer 295  
 I.C.T. 1900 and 1900A Series computers 83, 184  
 I.C.T. 1902 computer 2  
 I.C.T. 1903 computer 59, 248  
 I.C.T. 1906A computer 33  
 I.C.T. 1909 computer 168  
 I.C.T. in India 148

I.D.S. (Integrated data store) 52  
 IFIP Congress 68 202  
 Imperial College 141  
 Indata Limited 102  
 Inexpensive data processing for the commercial firm 224  
 Information retrieval 102  
 Information service, computer-based 102  
 Infotechnics Incorporated 261  
 Input-output and cost models 34  
 Instruments Electronics and Automation Exhibition (I.E.A.) 146  
 Integrated data store 52  
 Intelligent Machines Research Corporation 8  
 International Computers and Tabulators Limited 8  
 International Computers and Tabulators Indian Manufacturing Company (ICTIM) 148  
 International Computers Limited (ICL) 146  
 Inventory control 64, 92, 162, 168, 239, 242  
 Inventory control and forecasting at the B.B.C. 168  
 Invoicing machine, Friden 5005 78  
 IRIS 50 computer 302  
 I.T.T. Data Services 205

## J

JEAN—a simple language for multi-access systems 75  
 Jersey-Kapwood Limited 284  
 Judd, Robin Author 118

## K

Kandiah, S. Author 168  
 KDF 9 computer 178  
 Keeping the customer happy 58  
 Kenrick & Jefferson Limited 28  
 Kent Applications Sales Limited 153  
 Kent Limited, George 112  
 Kent (Petrochemical) Limited, George 24  
 Kienzle Data Systems Limited 122  
 Kienzle System 800 desk-sized computer 122  
 Kodak (Recordak Division of) 153  
 Kode enter the Common Market 258  
 K70 computer 24, 112

## L

Laser computers? 311  
 Light pen 135, 156, 219  
 Linear programming models 34  
 LIP (programming language) 282  
 Logabax Limited 276  
 Logabax 3200 desk-sized computer 204  
 Low-cost Argus computer 259

## M

Magnetic ledger cards 124, 212, 278  
 Magnetic tape conversion system, 9000 Series 250  
 Magnetic tape developments 303  
 Magnetic tape to microfilm conversion 297  
 Magpie (Production control system) 127  
 Management information and control system 52  
 Manchester Computer Centre 242  
 Martin, D. J. M. Author 75  
 Maxima Single Model 200 camera 30  
 McQuaker, R. (N.C.C.) 22  
 MDS-Great Britain Limited 33, 85, 262  
 MDS 1100 Series data recorders 33, 85, 262  
 Mechanical handling 64  
 Melbourne Stock Exchange 257  
 Message switching with STC 90  
 Metcalfe Cooper & Hepburn Limited 302  
 Microfiche 153, 161  
 Microfilm in commerce and industry 160  
 Microfilming computer records 294  
 Microfilm viewer 84, 160  
 Micro-imaged data addition system (MIDAS) 161  
 Midas (Micro-imaged data addition system) 161  
 Miles Druce Group, The 162  
 Minnesota Mining and Manufacturing Co. Ltd. (3M Company) 303  
 Modular One computer 198  
 Mobawk Data Sciences Corporation 262  
 Motor trade, Spares control for the 242  
 Muldivo Limited 224

Multi-access systems—JEAN, a simple language for 75  
 Multiprogramming system from Univac 316  
 Myriad II computer 154

## N

National Cash Register Company Limited 24  
 National Computing Centre (N.C.C.) 22  
 National Loose Leaf Company Limited 153  
 National Research and Development Corporation (NRDC) 160, 259  
 Natural language programming 281  
 NCR Century Series 150  
 NCR Century 100 computer 150  
 NCR Century 200 computer 150  
 NCR Series 500 computer 209  
 NCR 5900 computer 24  
 Network analysis 66  
 New computers for science and industry 267  
 New Jersey Blue Cross and Blue Shield 294  
 New Products 30, 84, 152  
 New products from Control Data 206  
 New publications from BSI 303  
 New Services 90  
 News from the bureaux 24, 307  
 NICOL (programming aid) 188  
 9000 Series magnetic tape conversion system 250  
 Noble, A. S. Author 34  
 Northern Computer Bureau Limited 308

## O

OCR—a practical means of data entry 8  
 OCR-B optical character recognition font 9  
 OCR developments 252  
 Office Equipment (John Dale) Limited 30  
 Olivetti, data transmission terminals from 96  
 Olivetti Limited 96  
 OPHELIE II (programming aid) 257  
 Optical Character Recognition 8, 252, 272  
 Ordinary English, Programming computers in 281  
 Organisation and objectives (Aspects of computing at Rolls-Royce) 130

## P

PAL (programming aid) 164  
 Paper tape file (Twinlock) 30  
 Paper tape reader (GNT Model 24) 30  
 PDP-8 computer 24, 112  
 PDP-8/I computer 113  
 PDP-8/L computer 260  
 PDP-9/L computer 260  
 P-E Consulting Group 141, 257  
 Pencil follower 236  
 PERT (Program Evaluation and Review Techniques) 66  
 Philips-Electrologica Limited 252, 276  
 Philips enter the computer market 252  
 Plessey 600/1200 data transmission system 149  
 Poland, progress in 27  
 Polish Trade Information Services 27  
 PI000 Series computers 252  
 PLAN (programming language) 188  
 PL/I (programming language) 222  
 POP-2 (programming language) 259  
 Potter SC1030 magnetic tape unit 84  
 Pre-printing service 302  
 Print quality monitor (I.C.T.) 10  
 Printer (MSP/50 serial printer) 30  
 Process control, digital computer for 112  
 Process control news 25  
 Production control 273  
 Production data, capturing at source 284  
 Profits of computing and systems analysis, The 290  
 Programma 101 235  
 Programming aids:  
 Algol 48, 118, 188, 222  
 CAPRI 257  
 Cobol 48, 118, 188, 222  
 Disc File Master Control Program (DFMCP) 48  
 Focal (Formula Calculation) 261  
 FORGE (File Organisation Generator) 48  
 Fortran 48, 118, 164, 188, 198, 222  
 GEORGE 191  
 I.D.S./COBOL 56  
 JEAN 75, 189  
 LIP 282  
 NICOL 188

Programming aids (continued)

OPHELIE II 257  
 PAL 164  
 PATSY 189  
 PERT 191  
 PL/1 222  
 PLAN 188  
 POP-2  
 PROCON 24, 116  
 RPG 222  
 SCAN 168  
 SPOOL 220  
 SWIFT 236  
 Symbol 198  
 Programming computers in ordinary English 281  
 Programming, Standardisation in 118  
 Progress in Poland 27  
 Project control, computer techniques for 66  
 Project 1 microfilm reader 160  
 PROMPT (Production Reviewing Organising and Monitoring of Performance Technique) 191

R

Randax-EDP Limited, new packages from 259  
 Rank Xerox copy service 90  
 Ranttheon 520 computer 128  
 RCA Magnetic Products Limited 303  
 RCA typesetting system 147  
 Real-time computer systems 14, 162  
 Real-time control at BEA 14  
 Real-time Stock Control System 162  
 Recordak Division of Kočak 153  
 Recording data on a typewriter 182  
 Redifon-Astrodata Limited 207, 307, 310  
 Redifon 2000 computer 310  
 Remington Rand Division of Sperry Rand Limited 30, 306  
 Remstar storage/retrieval system 30  
 Resource Scheduling 72  
 Reynaud, Cleomir Author 66  
 Robinson, F. Author 228  
 Role of the systems analyst, The 228  
 Rolls-Royce, Aspects of computing at 126, 130, 136  
 Rolls-Royce Limited, Aero Engine Division 126

S

Sanders Associates Inc. 306  
 SCAN (Stock Control and Analysis on Nineteen hundred) 168  
 Science and industry, new computers for 267  
 Scientific Control Systems Limited 311  
 Scientific Data Systems 149  
 Scientific Furnishings Limited (SFL) 84, 268  
 Scientific Instrument Research Association (SIRA) 102  
 SDI system 102  
 SDS (Scientific Data Systems) 149  
 Seat reservations systems 14, 293  
 Second look at the System/360 214  
 Selective Dissemination of Information (SDI) 102  
 SIA Limited 256, 308  
 Simulation, HOCUS—a simple approach to 141  
 SMD (Standard Magnetic Diary) 182  
 Social Security system (in France) 2  
 Software (see Programming aids)  
 Software developments 29, 52, 153, 309  
 Software facilities (I.C.T. 1900A) 184  
 Software system for handling management information (I.D.S.) 52  
 Spare Parts Inventory Control System (SPIC) 242  
 Spares control for the motor trade 242  
 Special-purpose stationery 28  
 Sperry Gyroscope Company 17  
 SPIC (Spare Parts Inventory Control System) 242  
 Standard Magnetic Diary (SMD) 182  
 Standard Telephones and Cables Limited 27, 90, 149  
 Standardisation in programming 118  
 Stationery, special purpose 28  
 STC GH 210 data communication system 149  
 STC 6300 ADX 90  
 Stock analysis as an aid to effective stock control 92  
 Stock control 64, 92, 162, 168, 239, 242  
 Stock Control and Analysis on Nineteen hundred (SCAN) 168  
 Stock control, Stock analysis as an aid to 92  
 Stock Control System, Real-time 162  
 Stock quotation service in Melbourne 257  
 Stock re-ordering, The computer and 239

Strategy for success 184  
 Stromberg Carlson S-C 4400 document recorder 297  
 Sadie, desk-sized computer 312  
 Susie, desk-sized computer 312  
 SWIFT (Software implemented Friden translator) 236  
 System/360 (IBM) 82, 132, 214  
 Systems analysis training 22  
 Systems analyst, The role of the 228  
 Systems Consultants Limited (SCL) 259

T

Tally Limited 147  
 Tatham, Laura Author 214  
 Techno-economic modelling of an organisation 34  
 Thermotank Limited 27  
 Thomas, H. M. Author 239  
 Time sharing developments 203  
 Time sharing in the City 260  
 Time Sharing Limited 91, 203, 308, 309  
 Training (in Systems Analysis) 22  
 Twinlock Limited 30

U

Unisets 14  
 Univac, Multiprogramming system from 316  
 Univac 494 computer 16  
 Univac 1050 computer 163  
 Univac 1108 computer 311  
 Univac 9400 computer 316  
 Universal Document Transport (I.C.T.) 8

V

Vacwell Engineering Company 30  
 Varian Data Machines 306  
 Videocomp 70/830 typesetting system 147  
 Visible record computers 122, 276

W

Western Union Telegraph Company 199  
 Westrex Model 37 page printer 84  
 Westrex, orders for 258  
 Westrex teleprinter 164



